

Chapter 11
Agricultural Resources

Chapter 11. Agricultural Resources

INTRODUCTION

Alternative 4, “EBMUD-Only Lower American River Delivery,” and Alternative 5, “Sacramento River Delivery,” in this REIR/SEIS include facilities that are similar to those discussed for Alternative 3, “Joint Water Supply,” in the 1997 DEIR/EIS. The 1997 DEIR/EIS, therefore, includes a full discussion of the environmental setting for these alternatives, and that information is summarized below as appropriate. Alternative 6, “Freeport East Delivery,” Alternative 7, “Freeport South Delivery,” and Alternative 8, “Bixler Delivery,” include facilities in locations that were not described in the 1997 DEIR/EIS. Additional information for Alternatives 6 through 8 is provided in the “Affected Environment” section below.

In addition to the “Affected Environment,” the 1997 DEIR/EIS includes descriptions of criteria that are used to determine the significance of impacts. These criteria are summarized below.

AFFECTED ENVIRONMENT

Local Agricultural Environment

The affected environment for the alternatives described in the 1997 DEIR/EIS, as well as for Alternatives 4, 5, 6, and 7, includes Sacramento and San Joaquin Counties. For Alternative 7, the affected environment includes Contra Costa County, as well as Sacramento and San Joaquin Counties. For Alternative 8, the affected environment is Contra Costa County.

Prime Farmland

In the 1997 DEIR/EIS, the study area was reported to contain an estimated 557,530 acres of prime farmland; this acreage total was based on 1994 values, which represented the most recent available data for these counties when the 1997 DEIR/EIS was prepared. In 1998,

Sacramento and San Joaquin counties contained an estimated 551,140 acres of prime farmland (California Department of Conservation 2000). The 1998 acreage is 6,390 acres lower than the 1994 acreage, which represents a decrease of about 2 percent. This small change in the acres of prime farmland does not affect the conclusions related to impacts on prime farmland in the 1997 DEIR/EIS.

Alternative 7 includes the construction of new treatment facilities in Contra Costa County. Alternative 8 includes the construction of a new treatment facility and treated water and brine discharge pipelines in Contra Costa County. In 1998, Contra Costa County contained an estimated 39,587 acres of prime farmland (California Department of Conservation 2000).

Agricultural Production

Agricultural production for the three counties in the study area is summarized in Table 11-1.

Table 11-1. Estimates of the Value of Agricultural Production in the Study Area for 1999	
County	Gross Value (\$)
Contra Costa	9,525,000
Sacramento	293,859,000
San Joaquin	1,352,672,000
Source: Contra Costa County Department of Agriculture 1999, Sacramento County Department of Agriculture 1999, San Joaquin County Office 1999.	

Williamson Act Lands

The California Land Conservation Act (Williamson Act) enables counties and cities to designate agricultural preserves (Williamson Act Lands) and offer preferential taxation to agricultural landowners based on the income-producing value of their property in agricultural use, rather than on its assessed market value. In return for the preferential rate, the landowner is required to sign a contract with the county or city agreeing not to develop the land for a

minimum 10-year period. Contracts are automatically renewed annually for 10 years unless a party to the contract files for nonrenewal or petitions for cancellation. In 1994, lands under the Williamson Act contract accounted for approximately 50 percent (776,860 acres) of the land base in Sacramento and San Joaquin counties (1997 DEIR/EIS). In 1998, 740,568 acres were enrolled in these two counties (Nordstrom 2000); this represents a decrease of 36,292 acres, or 4.7 percent, of the 1994 acreage. In Contra Costa County, 52,142 acres were enrolled under the Williamson Act in 1998 (Nordstrom 2000).

Agricultural Production

Approximately 193,300 acres of land were in agricultural production within Contra Costa County in 1999, with a total production value of \$9,525,000 (Contra Costa County 1999). Nursery crops ranked first in estimated total production value in 1999 at \$28,202,200. Vegetable and seed crops and fruit and nut crops ranked second and third at \$18,298,000 and \$18,197,000, respectively (Contra Costa County 1999).

Service Area

The study area for the service area for all of the alternatives consists of Alameda and Contra Costa Counties.

Prime Farmland

The 1997 DEIR/EIS reported that 48,624 acres of prime farmland were present in Alameda and Contra Costa Counties. In 1998, 47,147 acres of prime farmland were reported for these counties (California Department of Conservation 2000); this represents a decrease of 1,477 acres, or 3 percent, of the previous acreage.

Agricultural Production

Approximately 401,057 acres of land were in agricultural production within the study area in 1999; approximately 374,050 acres of this land were used for grazing (Alameda County 1999; Contra Costa County 1999). Nursery crops ranked first in estimated total production

value in 1996 at \$46,030,200. Fruit and nut crops and vegetable and seed crops ranked second and third at \$26,744,000 and \$19,245,000, respectively.

Williamson Act Lands

In 1998, 52,142 acres were enrolled under the Williams Act in Contra Costa County. (Nordstrom 2000)

ENVIRONMENTAL CONSEQUENCES

Methods and Assumptions

The methods and assumptions used in this REIR/SEIS are substantially similar to the methods and assumptions used in the 1997 DEIR/EIS. Any substantive differences are noted in the following discussion. The estimates of acreage of prime farmland within the alignment corridors for Alternatives 4 through 8 were based on California Department of Conservation (CDC) important farmland maps for Sacramento, San Joaquin, and Contra Costa Counties. The location and extent of crop types were based on California Department of Water Resources (DWR) land use maps. Crop yields and values were based on Sacramento and San Joaquin county annual crop reports. The analysis of farmland conversion impacts was performed by calculating farmland acreage within each alignment corridor, calculating corresponding crop yields and values that would be lost because of pipeline construction, and comparing the results with study area totals.

The number of properties currently under Williamson Act contracts was estimated by review of available maps, data provided by Sacramento and San Joaquin Counties, and data provided by the California Department of Conservation (Nordstrom 2000).

With the exceptions noted below for Alternatives 6 and 8, the impact evaluation assumed a 130-foot-wide right-of-way for pipeline alignments. The 130-foot-wide right-of-way consists of an 80-foot-wide permanent operation corridor and a 50-foot-wide temporary construction corridor. The analysis also

assumed that all agricultural land within the permanent operation corridors would not return to agricultural production and that agricultural land uses would be reestablished in the temporary construction corridors. Certain agricultural uses, including nonirrigated crops and pasture, likely would be allowed to resume within pipeline rights-of-way following construction; the evaluation method used in this analysis provides a worst-case estimate of the amount of agricultural land permanently converted.

For Alternative 6 (Freeport East Delivery), it was assumed that construction impacts for the pipeline segment from Freeport to the FSC would not extend beyond the 80-foot right-of-way of the roadways under which the pipeline would be placed.

For Alternative 8, it was assumed that pipeline construction impacts would not extend beyond EBMUD's right-of-way for the Mokelumne Aqueducts, for those portions of the pipelines that would be installed in the right-of-way for the aqueducts.

The analysis also included an evaluation of impacts on agricultural lands associated with the FSC and Mokelumne Aqueducts pumping plants, power transmission facilities, and pipeline construction staging areas. Conversion of agricultural land as a result of construction of the FSC and Mokelumne Aqueducts pumping plants and power transmission facilities was considered permanent. The pipeline construction staging areas would be small and would be restored to their original uses following construction and thus would not contribute to long-term impacts on agricultural production or loss of prime farmland. Although the exact number and locations of construction staging areas have not yet been determined, these areas were accounted for in this conservative analysis. In addition, the impacts on agricultural lands associated with new treatment facilities associated with Alternatives 5, 6, 7, and 8 were included in this analysis.

Significance Criteria

For purposes of this analysis, impacts on agricultural resources were considered significant if a substantial portion of farmland in the local region (defined as the study area) would be converted or its productivity reduced because of construction and operation of the project. The determination of what degree of conversion constitutes a "substantial portion" of farmland was based on two factors:

- The amount of prime farmland converted by the project relative to the amount in the study area.
- The loss of production value of specific crops relative to the total production value in the study area.

Impacts Found to Be Less Than Significant

Alternative 4: EBMUD-Only Lower American River Delivery

This alternative is very similar to Alternative 3 as described in the 1997 DEIR/EIS. The agriculture analysis for Alignment 5 of Alternative 3 focused on the pipeline segment between Fairbairn WTP and the FSC and Alignment 2 of Alternative 2. The portion of the Alternative 3 pipeline extending from the I-5 delivery point to Fairbairn WTP does not cross agricultural land. Therefore, Alternative 4 would have the same impacts as described for Alternative 3 in the 1997 DEIR/EIS.

Impact: Loss or Conversion of Prime Farmland. The total acreage of prime farmland affected under Alternative 4 would represent less than 0.01 percent of the total acreage of prime farmland in Sacramento and San Joaquin counties (Table 11-2). Impacts would include the permanent loss of approximately 13 acres in the 80-foot-wide operations corridor and the temporary loss of 7 acres in the 50-foot-wide construction corridor.

Table 11-2. Estimated Acreage of Prime Farmland within Each Alignment Corridor Under Alternatives 4 and 5

	Estimated Acreage of Prime Farmland		Total Acres
	80-Foot-Wide Operation Corridor	50-Foot-Wide Construction Corridor	
Fairbairn WTP to FSC	0.60	0.40	1
FSC to Mokelumne Aqueducts	12	7	19
Total	12.6	7.4	20
Acreage of prime farmland in the study area totaled 557,530 acres in 1995 and 551,140 acres in 1998.			

As described in the 1997 DEIR/EIS, the impact of permanent conversion of a small percentage of the prime farmland would be less than significant. No mitigation is required.

Impact: Loss of Agricultural Production.

The estimated total acreage of agricultural land removed from production represents less than 0.01 percent of the total agricultural land under production in the study area (Table 11-3). The loss of production from these lands would represent less than 0.01 percent of the total value of agricultural production in the study area. The permanent conversion of agricultural land would be about 24 acres (2 acres in the route from Sacramento to the FSC and 22 acres in the route from the FSC to the Mokelumne Aqueducts). Associated losses in annual production value would be approximately \$23,180. The temporary loss of production because of construction activities occurring within the 50-foot-wide construction corridor would be about 11 acres (2 acres in the route from Sacramento to the FSC and 9 acres in the route from the FSC to the Mokelumne Aqueducts). Associated temporary losses in annual production value would be \$15,810.

The construction of new facilities would impact about 27 acres of open space in San Joaquin County. Since this land is an unmined portion of an aggregate mining area, this

construction would not impact agricultural production.

As described in the 1997 DEIR/EIS, the impact of permanent loss of a small percentage of the agricultural production would be less than significant. No mitigation is required.

Impact: Nonrenewal or Termination of Williamson Act Contracts. An estimated 13 parcels currently under Williamson Act contracts exist within the pipeline alignment construction corridor under Alternative 4 (2 parcels in the route from the intake to the FSC and 11 in route from the FSC to the Mokelumne Aqueducts). As described in the 1997 DEIR/EIS, this impact would be less than significant. No mitigation is required.

Alternative 5: Sacramento River Delivery

With the exception of the location of the water intake facilities in Sacramento, land use requirements for Alternative 5 are the same as the land use requirements for Alternative 4. Since the intake facilities for these two alternatives are not located in agricultural land, the intake facilities would have no impact on agricultural land use.

Therefore, Alternative 5 would have the same impacts as described above for Alternative 4. These impacts would be less than significant. No mitigation is required.

Alternative 6: Freeport East Delivery

Impact: Loss or Conversion of Prime Farmland. Construction of the pipeline from Freeport to the FSC would be limited to the right-of-way for the roadbed. Therefore, this segment of the alternative would not have an impact on prime farmland. The impacts for the route from the FSC to the Mokelumne Aqueducts would be the same as those described for this segment under Alternative 4 (Table 11-4). No mitigation is required.

Table 11-3. Estimated Harvest Acreage and Production Values within the Alignment Corridors Under Alternatives 4, 5, 6, 7, and 8

Crop Type	Alternatives 4 and 5 (Sacramento to FSC)				Alternatives 4, 5, and 6 (FSC to Aqueducts)				Alternative 7			Alternative 8	
	Operation Corridor	Construction Corridor	Total		Operation Corridor	Construction Corridor	Total		Operation Corridor	Construction Corridor	Total	Operation Corridor	Total
Truck crops													
Acres	--	--	--		7	5	12		10	6	16	--	--
Value (\$)	--	--	--		19,250	13,750	33,000		27,500	16,500	44,000	--	--
Field crops													
Acres	--	--	--		6	4	10		10	6	16	--	--
Value (\$)	--	--	--		3,000	2,000	5,000		5,000	3,000	8,000	--	--
Vineyards													
Acres	--	--	--		--	--	--		15	10	25	--	--
Value (\$)	--	--	--		--	--	--		53,400	35,600	89,000	--	--
Pastures													
Acres	2	2	4		--	--	--		35	22	57	--	--
Value (\$)	60	60	120		--	--	--		1,050	660	1,710	--	--
Range													
Acres	--	--	--		8	--	8		--	--	--	--	--
Value (\$)	--	--	--		70	--	70		--	--	--	--	--
Grain and hay crops													
Acres	--	--	--		--	--	--		9	6	15	--	--
Value (\$)	--	--	--		--	--	--		5,400	3,600	9,000	--	--
Rice													
Acres	--	--	--		1	0	1		--	--	--	--	--
Value (\$)	--	--	--		800	--	800		--	--	--	--	--
Total Acres	2	2	4		22	9	31		79	50	129	--	--
Total Value (\$)	60	60	120		23,120	15,750	38,870		92,350	59,360	151,710	--	--

Note: The permanent operation corridor is assumed to be 80 feet wide, and the temporary construction corridor is assumed to be 50 feet wide. Operation corridor totals include land converted as a result of construction of pumping plants.
 Values and acreages have not been updated from the 1997 DEIR/EIS because the Department of Water Resources Crop Maps have not been updated since 1993 for Sacramento County and 1996 for San Joaquin County.

Table 11-4. Estimated Acreage of Prime Farmland within Corridors for Alternatives 4 through 8

	Estimated Acreage of Prime Farmland		
	80-Foot-Wide Operation Corridor	50-Foot-Wide Construction Corridor	Total Acres
Alternative 4	12.6	7.4	20
Alternative 5	12.6	7.4	20
Alternative 6	12	7	19
Alternative 7	96	60	156
Alternative 8	NA	NA	NA
NA: Not applicable. This alternative would be built in an existing EBMUD right-of-way.			
Acreage of prime farmland in the study area totaled 557,530 acres in 1995 and 551,140 acres in 1998.			

Land affected under Alternative 6 would represent less than 0.01 percent of the total acreage of prime farmland in Sacramento and San Joaquin Counties (Table 11-4). There would be a loss of approximately 12 acres in the 80-foot-wide operations corridor and the temporary loss of 7 acres in the 50-foot-wide construction corridor. This impact is less than significant. No mitigation is required.

Impact: Loss of Agricultural Production.

The acreage of agricultural land removed from service under Alternative 6 would be the same as described above for the route from FSC to the Mokelumne Aqueducts under Alternative 4. The permanent conversion of agricultural land would be 22 acres. Associated losses in annual production value would be approximately \$23,120. The temporary loss of production because of construction activities occurring within the 50-foot-wide construction corridor would be 9 acres, with associated temporary losses in annual production of \$15,750. The estimated total acreage of agricultural land removed from production represents less than 0.01 percent of the total agricultural land under production in the study area, and the loss of production from these lands would represent less than 0.01 percent of the total value of agricultural production in the study area (Table

11-3). This impact is less than significant. No mitigation is required.

Impact: Nonrenewal or Termination of Williamson Act Contracts. Agricultural lands would not be affected by the pipeline segment from Freeport to the FSC. For the pipeline segment from the FSC to the Mokelumne aqueducts, an estimated 11 parcels currently under Williamson Act contracts would be affected, as discussed above under Alternative 4. This impact is less than significant. No mitigation is required.

Alternative 7: Freeport South Delivery

Impact: Loss or Conversion of Prime Farmland. The construction of the pipeline from Freeport to the Mokelumne Aqueducts at Stockton would result in the permanent loss of approximately 65 acres in the 80-foot-wide operations corridor and the temporary loss of 40 acres in the 50-foot-wide construction corridor. In addition, the construction of pretreatment facilities at Bixler would result in the loss of about 27 acres of prime farmland in Contra Costa County. The 132 acres of prime farmland affected under Alternative 7 would represent less than 0.1 percent of the 590,727 acres of prime farmland in Sacramento, San Joaquin, and Contra Costa counties in 1998. As described in the 1997 DEIR/EIS, this impact is less than significant. No mitigation is required.

Impact: Loss of Agricultural Production.

The acreage of agricultural land removed from service under Alternative 7 would be 129 acres. The permanent conversion of agricultural land would be 79 acres, with associated losses in annual production value of about \$92,350. The temporary loss of production because of construction activities occurring within the 50-foot-wide construction corridor would be 50 acres, with associated temporary losses in annual production value of \$59,360. The estimated total acreage of agricultural land removed from production represents less than 0.1 percent of the total agricultural land under production in the study area, and the loss of production from these lands would represent less than 0.1 percent of the total value of agricultural production in the study area (Table 11-3). As described in the

1997 DEIR/EIS, this impact is less than significant. No mitigation is required.

Impact: Nonrenewal or Termination of Williamson Act Contracts. An estimated 36 parcels currently under Williamson Act contracts would be affected along the pipeline route from Freeport to Stockton. Assuming an 80-foot wide operations corridor and a 50-foot wide construction corridor, 160 acres would be permanently removed from agriculture, and 100 acres would be temporarily affected. The combined total of 260 acres represents less than 0.1 percent of the 740,568 acres of land under Williamson Act Contracts in Sacramento and San Joaquin Counties in 1998.

The new WTP at Bixler would be constructed on about 27 acres adjacent to EBMUD's existing pumping plant. The site is currently in agricultural use and under Williamson Act contract, which prohibits non-agricultural use of the land. In order to construct the treatment plant at Bixler, the existing Williamson Act contracts on the property would have to be cancelled. The 27 acres needed for the treatment plant represent less than 0.1 percent of the 52,142 acres of land under Williamson Act Contract in Contra Costa County in 1998. As described in the 1997 DEIR/EIS, this impact is less than significant. No mitigation is required.

Alternative 8: Bixler Delivery

Impact: Loss or Conversion of Prime Farmland. The intake channel would be constructed on land between the existing Mokelumne Aqueducts right-of-way and the adjacent Atchison Topeka and Santa Fe Railroad right-of-way. The brine discharge pipeline would be constructed entirely within the aqueducts right-of-way, with the exception of the segment that discharges to Suisun Bay near Antioch. The discharge line to Suisun Bay would not traverse farmland. Therefore, the intake line and brine discharge line would not have an impact on prime farmland. However, the construction of a new WTP at Bixler would result in the loss of about 27 acres of prime farmland. Since there were 39,587 acres of prime farmland in Contra Costa County in 1998,

this impact is less than significant. No mitigation is required.

Impact: Loss of Agricultural Production. Construction of the WTP would remove 27 acres of prime farmland from agricultural use. In recent years, this land has been used to grow corn and tomatoes. In 1999, the agricultural production value for corn and tomatoes were \$6,326,000 and \$7,177,000, respectively, in Contra Costa County (Contra Costa County 1999). Loss of 27 acres of land for corn would reduce the production value by \$70,280. Loss of 27 acres of land for tomatoes would reduce the production value by \$62,720. Such losses of production would represent approximately one percent of the total value of these crops in Contra Costa County. Therefore, the impact of the permanent loss of 27 acres of farmland is less than significant. No mitigation is required.

Impact: Nonrenewal or Termination of Williamson Act Contracts. The construction of a new WTP at Bixler would result in the loss of approximately 27 acres of prime farmland that is currently under Williamson Act contracts. In order to construct the WTP, the existing Williamson Act contracts on the property would have to be cancelled. The 27 acres needed for the treatment plant represent less than 0.1 percent of the 52,142 acres of land under Williamson Act Contract in Contra Costa County in 1998. This impact is less than significant. No mitigation is required.

Significant Impacts and Mitigation Measures

None of the project alternatives would result in significant impacts on agricultural resources, and no mitigation measures are required.